

The opinion in support of the decision being entered today  
is *not* binding precedent of the Board

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* CHARLES EDWARD BOWERS

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Appeal 2006-2287  
Application 10/631,320  
Technology Center 1700

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Decided: August 28, 2007

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Before BRADLEY R. GARRIS, CHARLES F. WARREN, and  
THOMAS A. WALTZ, *Administrative Patent Judges*.

WARREN, *Administrative Patent Judge*.

DECISION ON APPEAL

Applicant appeals to the Board from the decision of the Primary Examiner finally rejecting claims 29 through 48 in the Office Action mailed July 28, 2005. 35 U.S.C. §§ 6 and 134(a) (2002); 37 C.F.R. § 41.31(a) (2005).

We reverse the decision of the Primary Examiner.

Claim 29 illustrates Appellant's invention of a method of making a Saxony carpet, and is representative of the claims on appeal.

29. The method of making a Saxony carpet comprising the steps:
- a. forming an untwisted core strand comprising at least one member selected from the group consisting of a natural or synthetic fiber;
  - b. forming a wrapper yarn comprising at least one base synthetic fiber material, and a heat activated binder fiber having a melting point at least 20°C lower than the base synthetic fiber;
  - c. wrapping the wrapper yarn about the core strand, forming an untwisted wrapped singles yarn;
  - d. heat setting the untwisted wrapped singles yarn at a temperature sufficient to melt the heated activated binder material, then subsequently cooling and solidifying said melt, thereby constricting the base synthetic fiber component of the wrapper yarn about the core strand and securing it to the core strand;
  - e. incorporating the untwisted heat-treated yarn into a backing material as loops;
  - f. cutting the loops to form vertical tufts; and
  - g. dyeing and finishing.

The Examiner relies on the evidence in these references:

Katagi	JP 2-300340 A	Dec. 12, 1990
Bowers	WO 99/14408 A1	Mar. 25, 1999

The Examiner applies Katagi<sup>1</sup> in view of Bowers and Bowers in view of Katagi to all the claims under 35 U.S.C. § 103(a), the two grounds of rejection submitted for review on appeal by Appellant (Answer 3-7; Br. 4-5).<sup>2</sup> The claims are argued as a group in each ground by Appellant and thus, we decide this appeal on independent claim 29. 37 C.F.R. § 41.37(c)(1)(vii) (2005).

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<sup>1</sup> We considered the translation of Katagi prepared for the USPTO by McElroy Translation Company (Washington, DC, March 2006).

<sup>2</sup> The ground of rejection of claim 29 under 35 U.S.C. § 102(b) over Bowers is withdrawn by the Examiner (Answer 2).

The claimed method comprises at least the steps of, among other things, wrapping a wrapper yarn around an untwisted core strand to form an untwisted wrapped singles yarn, wherein the wrapper fiber comprises at least a base synthetic fiber material and a heat activated binder fiber having a melting point at least 20°C lower than the base synthetic fiber; and heat setting the untwisted wrapped singles yarn to form an untwisted heat-treated yarn. The heat setting temperature is sufficient to melt the heat activated binder material which is subsequently cooled and solidifies, which constricts the base synthetic fiber of the wrapper yarn about the core strand and securing it to the core strand.

The dispositive issue in each ground of rejection is whether one of ordinary skill in this art would have found in Bowers at page 3, lines 10-31, a teaching or inference<sup>3</sup> that the method of making a carpet disclosed in the reference reasonably includes the claimed steps of heat setting the untwisted wrapped singles yarn to form an untwisted heat-treated yarn at a heat setting temperature sufficient to melt the heat-activated binder material, subsequently cooling and solidifying the untwisted heat-treated yarn in a manner that constricts the base synthetic fiber of the wrapper yarn about the core strand, securing it to the core strand. This portion of Bowers reads in pertinent part:

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<sup>3</sup> It is well settled that a reference stands for all of the specific teachings thereof as well as the inferences one of ordinary skill in this art would have reasonably been expected to draw therefrom, see *In re Fritch*, 972 F.2d 1260, 1264-65, 23 USPQ2d 1780, 1782-83 (Fed. Cir. 1992); *In re Preda*, 401 F.2d 825, 826, 159 USPQ 342, 344 (CCPA 1968), presuming skill on the part of this person. *In re Sovish*, 769 F.2d 738, 743, 226 USPQ 771, 774 (Fed. Cir. 1985).

Yarn, preferably synthetic, comprises at least one bundle of fiber, the fiber being ring spun or wrap spun with a second fiber . . . comprising a heat-activated binder material, preferably a fiber, having a melting point range of about 105 to 190°C . . . . The preferred fiber bundle comprise staple fibers, preferably in the form of a sliver. . . . The present invention is also an article, preferably . . . a carpet, made from this yarn. The present invention is also a process of producing a yarn suitable for tufting, the process comprising the steps of:

- a. forming a bundle of fiber . . . ;
- b. ring spinning or wrap spinning the bundle of fiber with a second fiber comprising a heat-activated binder . . . ;
- c. heating the yarn sufficiently to melt the binder material; followed by
- d. cooling the yarn, preferably during twist setting, to solidify the binder material.

Bowers 3:10-31.

The Examiner contends:

While not explicitly stated, [Bowers] as a whole would have reasonably suggested to one [sic] in the art that, although it is desired to use a twist heat-treated yarn as a carpet face yarn, such is not necessary as evidence from passages on page 3[,] lines 10-31 . . . . In other words, one [sic] in the art reading [Bowers] would have reasonably recognized and appreciated that, twist-free heat-treated yarn of [Bowers] can effectively be used as a carpet face yarn.

Answer 6. At the same time, the Examiner agrees with Appellant's contention that Bowers teaches subjecting the untwisted binder-wrapped yarn "to a standard twist setting operation under high temperatures" while the claimed method specifies using untwisted heat-activated wrapped singles yarn (*id.* 7-8; Br., e.g., 8; *see also* Reply Br. 2-4).

We find Bowers would have disclosed to one of ordinary skill in this art a method of forming a carpet which includes the step of heat treating the

yarn under conditions for twist setting the yarn, “thereby retaining the twist in cut-pile carpets” which improves, among other things, durability and wear performance (Bowers, e.g., 3:10, to 4:21, 6:1-20, and Examples 1-4). We find no disclosure in Bowers of a step of heat-activating the binder fiber that does not result in twist setting the yarn.

In the absence of scientific reasoning or evidence establishing one of ordinary skill in the art would have recognized in Bowers as a whole a teaching or inference of a step of heat activating the binder fiber that does not result in twist setting the yarn, the Examiner has not established that this person would have considered the cited portion of Bowers to provide the teachings and inferences argued in the Answer. *See, e.g., In re Rouffet*, 149 F.3d 1350, 1358, 47 USPQ2d 1453, 1458 (Fed. Cir. 1998) (“hindsight” is inferred when the specific understanding or principal within the knowledge of one of ordinary skill in the art leading to the modification of the prior art in order to arrive at Appellant’s claimed invention has not been explained); *Fritch*, 972 F.2d at 1266, 23 USPQ2d at 1783-84 (“The mere fact that the prior art may be *modified* in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification.”).

Accordingly, in the absence of a *prima facie* case of obviousness, we reverse the grounds of rejection under 35 U.S.C. § 103(a).

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The Primary Examiner's decision is reversed.

REVERSED

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